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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/702,546	10/31/2000	Gordon D. Ford		1155

7590 04/21/2004  
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EXAMINER

SAFAIPOUR, HOUSHANG

ART UNIT PAPER NUMBER

2622

DATE MAILED: 04/21/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/702,546

Applicant(s)

FORD ET AL.

Examiner

Houshang Safaipoor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's amendment filed on February 13, 2004 have been fully considered but they are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-13, 15, 16 and 18-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Knox (U. S. Patent No. 5,646,744).

Regarding claim 1, Knox discloses a method for reducing the effect of bleed-through on a captured image comprising:

illuminating a physical medium with light having a first illumination quality (fig. 2, lamp 42, col. 4, lines 19-36);

recording a first image of the physical medium (col. 4, lines 19-36);

illuminating the physical medium with light having a second illumination quality (fig. 2, col. 4, lines 37-57);

recording a second image of the physical medium (col. 4, lines 37-57); and

combining the first image and the second image to form a captured image, wherein a difference between said first and second images represent a bleed-through of at least one of an

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image, text and a mark on a first side of said medium to a second side of said medium which is subtracted out to reduce the bleed-through (figs. 5A-E, col. 5 line 59 through col. 6, line 53).

Regarding claim 2, Knox discloses the method as in Claim 1, wherein a single illumination source provides said light having a first illumination quality and said light having a second illumination quality (col. 6, lines 4-17)).

Regarding claim 3, Knox discloses the method as in Claim 1, wherein a first illumination source provides said light having a first illumination quality and a second illumination source provides said light having a second illumination quality (col. 4, lines 19-57).

Regarding claim 4, Knox discloses the method as in Claim 1, wherein the first illumination quality is a first illumination intensity, and the second illumination quality is a second illumination intensity (col. 4, lines 19-57).

Regarding claim 6, Knox discloses the method as in Claim 1, wherein the first image of the physical medium is recorded using light reflected from the physical medium, and the second image of the physical medium is recorded using light transmitted through the physical medium (fig. 5B, col. 5 line 62 through col. 6, line 3). Light transmitted through the document when scanning the backside of the document and creates the show-through effect.

Regarding claims 7, 8 and 9 arguments analogous to those presented for claims 1, 2 and 6 are applicable to claims 7, 8 and 9 respectively.

Regarding claim 10, Knox discloses an image-capturing system comprising:  
at least one illumination source, said at least one illumination source capable of illuminating said physical medium such that light is reflected from said physical medium and transmitted through said physical medium (please refer to arguments under claim 6).;

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at least one detector, said detector enabled to generate signals in response to said light reflected from said physical medium and said light transmitted through said physical medium, and said detector further enabled to output said signals for image processing (col. 3, line 56 through col. 4, line 18); and

an information handling system comprising:

at least one processor; memory operably associated with said processor; and a program of instructions capable of being stored in said memory and executed by said processor, said program of instructions enabled to control illumination of the physical medium, receive said electrical signals output by said at least one detector; and process said electrical signals to form a captured image having reduced bleed-through (col. 5, lines 24-43 and col. 7, line 62 through col. 8, line 11).

Regarding claims 11, 13, and 16 arguments analogous to those presented for claims 6 and 8 are applicable to claims 11, 13 and 16 respectively.

Regarding claim 12, Knox discloses the image-capturing system as in Claim 11, wherein said first illumination source is configured to illuminate a first side of the physical medium, and said second illumination source is configured to illuminate a second side of the physical medium (col. 4, lines 19-57).

Regarding claim 15, Knox discloses the image-capturing system as in Claim 10, wherein said at least one illumination source is configured to illuminate said physical medium a plurality of times (col. 6, lines 4-17).

Regarding claim 18, Knox discloses the image-capturing system as in Claim 10, wherein said image capturing system comprises a facsimile device (col. 5, lines 9-12).

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Regarding claim 19, Knox discloses the image-capturing system as in Claim 10, wherein said image capturing system comprises a copy machine (col. 5, lines 44-57).

Regarding claim 20, Knox discloses the image-capturing system as in Claim 10, wherein said image capturing system comprises a scanner (col. 5, lines 9-12).

Regarding claim 21, Knox discloses an image-capturing system comprising:

at least one illumination source, said at least one illumination source capable of illuminating said physical medium with light having a first illumination characteristic and light having at least a second illumination characteristic different from said first illumination characteristic (col. 4, lines 6-57);

at least one detector, said detector enabled to generate electrical signals in response to light reflected from said physical medium, and said detector further enabled to output said electrical signals for image processing (col. 4, lines 6-57).

Regarding claim 22, arguments analogous to those presented for claim 4 are applicable to claim 22.

Regarding claims 23-25, arguments analogous to those presented for claims 18-20 are applicable to claims 23-25.

Regarding claim 26, Knox discloses a method for correcting bleed-through in a captured image comprising:

obtaining information indicative of a first image density of an image formed on a physical medium; obtaining information indicative of a second image density of the image formed on the physical medium; comparing the information indicative of the first image density with the information indicative of the second image density to determine what portions of the

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information are due to bleed-through; and altering the portions of the information that are due to bleed-through in the physical medium to form a corrected image (col. 5, line 58 through col. 7, line 45).

Regarding claim 27, arguments analogous to those presented for claim 6 are applicable to claim 27.

Regarding claim 28, Knox discloses the method as in Claim 26; wherein the information indicative of a first image density and the information indicative of a second image density are each obtained using reflected light (col. 5, line 58 through col. 7, line 45).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 4, 17 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knox (U. S. Patent No. 5,646,744).

Regarding claims 5, 14, 17 and 29, Knox does not explicitly disclose the first and second illumination source with different frequencies. However, utilizing light sources with different frequencies is well known and routinely implemented in the art to detect defects. Therefore it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to use light sources in Knox apparatus to identify artifacts.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Houshang Safaipour whose telephone number is (703)306-4037. The examiner can normally be reached on Mon.-Thurs. from 6:30am to 5:00pm.




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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles, Sr. can be reached on (703)305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Houshang Safaipoor  
Patent Examiner  
Art Unit 2622  
April 8, 2004

  
EDWARD COLES  
SUPERVISOR, PATENT EXAMINER  
TECHNICAL CENTER 000